Benefits and Challenges of Agile in a Distributed Environment

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CEO Luxoft Canada
1. Business drivers
2. Challenges of distributed development
3. Benefits of distributed Agile
4. Adjusting Agile practices for distributed environments
5. Q&A
Business Drivers

- **Agile**
  > Shorter time to market
  > Rapidly changing business requirements
  > Improvements in productivity of development teams

- **Outsourcing**
  > Access to larger pool of scarce technical resources
  > Cost savings
  > Ability to scale rapidly
Challenges of Distributed Development

- Lack of visibility on project status
- Delay in feedback cycle
- Loss of business and technical contexts
- Lack of common infrastructure
- Decrease in communication bandwidth
- Higher documentation overhead
- Lack of trust
Distributed Development Challenges with Plan-driven Process

In house

Outsourced

Decreased Visibility

Requirements

Implementation

Verification

Release

Communication

Delayed Feedback
Agile Principles

- Customer satisfaction through rapid and continuous delivery of useful software
- Working software is delivered frequently and is the principal measure of progress
- Regular adaptation to changing circumstances
- Close daily cooperation between business people and development team
- Simplicity and reduction of waste
- Frequent inspection and adaptation
- Empowerment and self-organizing of teams
Benefits of Agile Development Process

- Higher productivity
- Shorter time to market
- Competitive advantage by allowing quick response to changing market requirements
- Reduced risks
- Higher quality
- Reduced waste (by not spending energy on activities that do not bring customer value)
Benefits of distributed Agile

**Agile Practices**

- Short iterations, with product demo and retrospective at the end
  - Customer is part of the team
  - Empowering the team
  - Frequent team meetings
  - Test-driven development
  - Continuous integration

Visibility
Feedback
Adjustment
Benefits of distributed Agile

**Agile Practices**

- Short iterations, with product demo and retrospective at the end
- **Customer is part of the team**
  - Empowering the team
  - Frequent team meetings
  - Test-driven development
  - Continuous integration

**Business Context**

Visibility

Communication
Benefits of distributed Agile

**Agile Practices**

- Short iterations, with product demo and retrospective at the end
- Customer is part of the team

**Empowering the team**

- Frequent team meetings
- Test-driven development
- Continuous integration

**Trust**

**Feedback**

**Communication**
Benefits of distributed Agile

Agile Practices

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Benefits of distributed Agile

Agile Practices

- Short iterations, with product demo and retrospective at the end
- Customer is part of the team
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- Frequent team meetings
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- Continuous integration

Common Domain Language
Better Quality
Knowing when you are Done
Benefits of distributed Agile

**Agile Practices**

- Short iterations, with product demo and retrospective at the end
- Customer is part of the team
- Empowering the team
- Frequent team meetings
- Test-driven development

- **Instant Feedback**
- **Common Infrastructure**
- **Knowing where you are**

- **Continuous integration**
While some Agile techniques can be applied in the same way as in non-distributed environments, others may require modification.

- Information sharing
- Level of documentation
- Coordination between multiple teams
- Communication channels
- Status tracking & reporting
- Frequency of meeting
Communication
### Information sharing with a distributed team

**Orange**

<table>
<thead>
<tr>
<th>Name</th>
<th>Sprint Page</th>
<th>Start Date</th>
<th>Target End Date</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin: Session Query Sprint</td>
<td>Home Page</td>
<td>6/12/2006</td>
<td>7/7/2006</td>
<td>In progress</td>
</tr>
<tr>
<td>Admin: Terms Sprint 1</td>
<td>HomePage</td>
<td>6/7/2006</td>
<td>7/7/2006</td>
<td>In progress</td>
</tr>
<tr>
<td>Tools Sprint 1</td>
<td>HomePage</td>
<td>6/7/2006</td>
<td>6/30/2006</td>
<td>In progress</td>
</tr>
</tbody>
</table>

**Announcements**

- **Sign up for alerts** by Morrow, Chloe  
  Hi everyone - in order to sign up for alerts about activity on the site in general - you can use this link [https://km5/Allex/RE/RE/Orange/Layouts/1633/MySubs.aspx](https://km5/Allex/RE/RE/Orange/Layouts/1633/MySubs.aspx) and then select all the lists and discussions you want to be alerted about.

- **Kick Off Meeting Slides** by Morrow, Chloe  
  Hi all - here are the slides that were presented at the kick-off meeting.

**Add new announcement**

**MAJOR PROJECT MILESTONES**

- Development: June/July
- Feature Complete: July 28
- System Test/Start: Aug 14
- Ready for Release: Sept 29

**Admin Team**

- SCRUM Master: Karen Ciardi  
  - Product Manager: Geoffslave  
  - Architect: Prashant Raviakal/James Zhou  
  - UI Designer: Tom Brown  
  - QA: Greg Chen

**Developers**

- Diane Bennett  
- Delwin Sheng  
- Surya Mudunia  
- Vinay Kapur  
- Deepak Laban  
- Alexander Petrov

**Tools Team**

- SCRUM Master: Ryan Ong  
  - Product Manager: Kinsoon Allen  
  - Architect: Claude Vernooy/Lance Reuman  
  - UI Designer: Scott Whitmore  
  - QA: T&S

**Developers**

- Ray Xie  
- Kazem Naderi  
- Barry K.
Information sharing with a distributed team

- Bring all previously developed Admin functionality to the "release ready" point.
- Goal of this sprint is NFR to enhance functionality by adding new requirements but to ensure that there are no c
  initialization, tracking, monitoring, etc as well as if you can create an object their is an interface to modify and

**Sprint Name**: Admin - no loose ends [id - 8]

**Status**: In progress  | Start date: 2/27/2006  | Target date: 3/24/2006
Meeting Rooms: Vista Conference Room  | NetMeeting IP: 10.60.2.111

Quest Conference # 1-866-252-1846 *6610411#

Team: Surya, Alexander / Architect - Surya, Ajay - UI - Brown, Tom

**Sprint Tasks**

- **Status**: Completed (22)
- **Status**: In Progress (1)

<table>
<thead>
<tr>
<th>Task ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fst 113</td>
<td>Delete Portfolio - Bennett, Diana</td>
</tr>
<tr>
<td>Fst 206</td>
<td>Delete LMS Person with Portfolio - Kampani, Vimal</td>
</tr>
<tr>
<td>Fst 249</td>
<td>Delete LMS Person in User pool with Portfolio - Kampani, Vimal</td>
</tr>
<tr>
<td>Fst 253</td>
<td>Delete LMS Institution &amp;Plugins - Madhuri, Surya</td>
</tr>
<tr>
<td>Fst prev sprint SICR - Normal - Admin - no loose ends</td>
<td></td>
</tr>
<tr>
<td>Tech Comm Documentation - Bailey, Janet</td>
<td></td>
</tr>
<tr>
<td>QA Test Plan - Surya, Alexander</td>
<td></td>
</tr>
<tr>
<td>Fst 205</td>
<td>Licensing Update Enrollment assistance to check enrollment assist for P2NI - Madhuri, Surya</td>
</tr>
<tr>
<td>Fst 249</td>
<td>Provide sample custom login page - Brown, Tom</td>
</tr>
</tbody>
</table>

**Sum**: 6

**In Progress**

- Admin LMS/RF Integration points doc (Diane)
- In Progress

**Accomplishments**

- Admin LMS/RF Integration points doc (Diane)
- In Progress

**Removed**

- License (Surya)
- TC Documentation (Janet)
- Test Cases (Alice)
- Delete Portfolio (Surya)

**Blocking Issues**

- Sprint Meeting, Tuesday, March 21st [new]
- 21-Mar-06 by Bennett, Diana (R)

**Accomplishments**

- License (Surya)
- TC Documentation (Janet)
- Test Cases (Alice)
- Delete Portfolio (Surya)
High Velocity Push to Market

- 3 Month Trains
- 2 Week Iterations
- Daily Scrums

Product Management:
- Business Analysis Paper
- Feature Need Analysis
- Master Iteration Plan

- Iterate
- Iterate
- Iterate
- Iterate

- Unit-Tested, Integrated Features
  Test Development
  Incremental Feature Acceptance

- Iterate
- Iterate

- Hardening Zone
  Everyone Reports to Quality Engineering
  Quality Engineering Holds Go/No-Go for End
Resourcing Patterns

Denver
- Product Mgmt
- System Arch
- Dev-System
- Quality Primary
- Tech Docs

Moscow
- Dev-Modules
- Quality Secondary

Product Mgmt From Denver
Docs Always Denver
Quality Always Split

Empowerment/Value
Relationship Time

Post Note: With 3 products we use a combination of these approaches.
For more information please contact:

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www.luxoft.ca